

Atty. Docket No. RBS2.P049

PATENT

IN THE UNITED STATES PATENT OFFICE

In Re Patent Application of

First Named Inventor: Ware, Frederick A.

Application No.: 10/053,340

Filed: 10/22/2001

For: METHOD AND APPARATUS FOR SIGNALING
BETWEEN DEVICES OF A MEMORY SYSTEM

Mail Stop Amendment
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Examiner: Nguyen, Than Vinh

Art Unit: 2187

Confirmation No. 8663

Certificate of Mailing or Transmission

I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria VA 22313-1450 or facsimile transmitted to the U.S. Patent and Trademark Office on the date shown below.

Tom Shoa

Name of person mailing/transmitting corresp.

Tom Shoa 1/26/2007

Signature

Date

INFORMATION DISCLOSURE STATEMENT UNDER 37 CFR 1.97

Sir:

Enclosed is an Information Disclosure Citation Form 1449/PTO together with a copy of each reference cited therein, excluding U.S. Patents and Published U.S. Patent Applications. It is respectfully requested that the cited references be considered and that the enclosed copy of the Form 1449/PTO be initialed by the Examiner to indicate such consideration and a copy thereof returned to applicant.

This Information Disclosure Statement is being submitted pursuant to 37 CFR 1.97(b)(4).
No fee is believed to be due.

Pursuant to 37 CFR 1.97(h), the submission of this Information Disclosure Statement is not to be construed as an admission that the information cited in this statement is material to patentability.

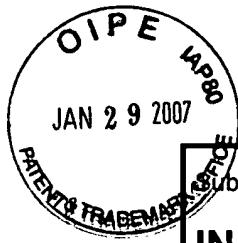
The Commissioner is hereby authorized to charge any fee deficiency in connection with this submission to Deposit Account No. 501914.

Respectfully submitted,

SHEMWELL MAHAMEDI LLP

Date Jan 26, 2007


Charles E. Shemwell, Reg. No. 40,171
Tel. 408-236-6645



JAN 29 2007

Substitute for Form 1449/PTO

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

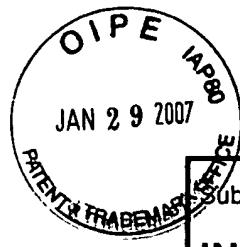
Page 1 of 10

Application No.	10/053,340
Filed	10/22/2001
First Inventor	Ware, Frederick A.
Art Unit	2187
Examiner	Nguyen, Than Vinh
Atty. Docket No.	RBS2.P049

U.S. Patent Documents					
Examiner Initials*	US Patent Document		Name of Patentee or Applicant of Cited Document	Date of Publication	Relevant Pages, Columns, Lines
	Number	Kind			
	2004/0003194		Bodas et al.	1/1/2004	
	2004-0170072	A1	Ware, Frederick et al.	9/2/2004	
	2005-0169097		Ware, Frederick et al.	3/31/2005	
	2006-0007761	A1	Ware, Frederick et al.	1/12/2006	
	2006-0039174	A1	Ware, Frederick et al.	2/23/2006	
	2006-0056244	A1	Ware, Frederick et al.	3/16/2006	
	2006-0069895	A1	Ware, Frederick et al.	3/30/2006	
	2006-0077731	A1	Ware, Frederick et al.	4/13/2006	
	2006-0129776	A1	Ware, Frederick et al.	6/15/2006	
	3,950,735		Patel	4/13/1976	
	4,183,095		Ward	1/8/1980	
	4,315,308		Jackson	2/9/1982	
	4,330,852		Redwine et al.	5/18/1982	
	4,337,523		Hotta et al.	6/29/1982	
	4,445,204		Nishiguchi	4/24/1984	
	4,499,536		Gemma et al.	2/12/1985	
	4,567,545		Mettler, Jr.	1/28/1986	
	4,637,018		Flora et al.	1/13/1987	
	4,646,270		Voss	2/24/1987	
	4,712,190		Guglielmi et al.	12/8/1987	
	4,719,602		Hag et al.	1/12/1988	
	4,755,937		Glier	7/5/1988	
	4,763,249		Bomba et al.	8/9/1988	
	4,792,926		Roberts	12/20/1988	

Examiner Signature		Date Considered
---------------------------	--	------------------------

*Examiner: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw a line through citation if not in conformance and not considered. Include a copy of this form with next communication to applicant.



JAN 29 2007

Substitute for Form 1449/PTO

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

Page 2 of 10

Application No.	10/053,340
Filed	10/22/2001
First Inventor	Ware, Frederick A.
Art Unit	2187
Examiner	Nguyen, Than Vinh
Atty. Docket No.	RBS2.P049

U.S. Patent Documents

Examiner Initials*	US Patent Document		Name of Patentee or Applicant of Cited Document	Date of Publication	Relevant Pages, Columns, Lines
	Number	Kind			
	4,792,929		Olson et al.	12/20/1988	
	4,799,199		Scales III et al.	1/17/1989	
	4,800,530		Itoh et al.	1/24/1989	
	4,821,226		Christopher et al.	4/11/1989	
	4,825,411		Hamano	4/25/1989	
	4,845,664		Aichelmann, Jr. et al.	7/4/1989	
	4,845,677		Chappell et al.	7/4/1989	
	4,849,937		Yoshimoto	7/18/1989	
	4,866,675		Kawashima	9/12/1989	
	4,875,192		Crisp et al.	9/12/1989	
	4,882,712		Sakurai	9/12/1989	
	4,891,791		Pinkham et al.	9/12/1989	
	4,916,670		Chambers	9/12/1989	
	4,920,483		Scherbatetskoy	9/12/1989	
	4,928,265		Higuchi et al.	5/22/1990	
	4,937,734		Bechtolsheim	6/26/1990	
	4,945,516		Kashiyama	7/31/1990	
	4,953,128		Kawai et al.	8/26/1990	
	5,001,672		Ebbers et al.	3/19/1991	
	5,077,693		Hardee et al.	12/31/1991	
	5,083,296		Hara et al.	1/21/1992	
	5,111,386		Fujishima et al.	5/5/1992	
	5,117,389		Yiu	5/26/1992	
	5,124,589		Shiomi et al.	6/23/1992	

Examiner Signature	Date Considered
---------------------------	------------------------

*Examiner: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw a line through citation if not in conformance and not considered. Include a copy of this form with next communication to applicant.



Substitute for Form 1449/PTO

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

Page 3 of 10

Application No.	10/053,340
Filed	10/22/2001
First Inventor	Ware, Frederick A.
Art Unit	2187
Examiner	Nguyen, Than Vinh
Atty. Docket No.	RBS2.P049

U.S. Patent Documents

Examiner Initials*	US Patent Document		Name of Patentee or Applicant of Cited Document	Date of Publication	Relevant Pages, Columns, Lines
	Number	Kind			
	5,140,688		White et al.	8/18/1992	
	5,179,687		Hidaka et al.	1/12/1993	
	5,260,905		Mori	11/9/1993	
	5,276,858		Oak et al.	1/4/1994	
	5,301,278		Bowater et al.	4/5/1994	
	5,305,278		Inoue	4/19/1994	
	5,311,483		Takasugi	5/10/1994	
	5,319,755		Farmwald et al.	6/7/1994	
	5,323,358		Toda et al.	6/21/1994	
	5,327,390		Takasugi	7/5/1994	
	5,339,276		Takasugi	8/16/1994	
	5,341,341		Fukuzo	8/23/1994	
	5,345,573		Bowden, III et al.	9/6/1994	
	5,365,489		Jeong	11/15/1994	
	5,379,438		Bell et al.	1/3/1995	
	5,381,376		Kim et al.	1/10/1995	
	5,381,538		Amini et al.	1/10/1995	
	5,384,745		Konishi et al.	1/24/1995	
	5,386,385		Stephens et al.	1/31/1995	
	5,390,149		Vogley et al.	2/14/1995	
	5,392,239		Margulis et al.	2/21/1995	
	5,404,338		Murai et al.	4/4/1995	
	5,404,463		McGarvey	4/4/1995	
	5,444,667		Obara	8/22/1995	

Examiner Signature		Date Considered
---------------------------	--	------------------------

*Examiner: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw a line through citation if not in conformance and not considered. Include a copy of this form with next communication to applicant.



Substitute for Form 1449/PTO

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

Page 4 of 10

Application No.	10/053,340
Filed	10/22/2001
First Inventor	Ware, Frederick A.
Art Unit	2187
Examiner	Nguyen, Than Vinh
Atty. Docket No.	RBS2.P049

U.S. Patent Documents

Examiner Initials*	US Patent Document		Name of Patentee or Applicant of Cited Document	Date of Publication	Relevant Pages, Columns, Lines
	Number	Kind			
	5,455,803		Kodama	10/3/1995	
	5,504,874		Galles et al.	4/2/1996	
	5,511,024		Ware et al.	4/23/1996	
	5,533,204		Tipley	7/2/1996	
	5,548,786		Amini et al.	8/20/1996	
	5,553,248		Melo et al.	9/3/1996	
	5,578,940		Dillon et al.	11/26/1996	
	5,611,058		Moore et al.	3/11/1997	
	5,638,531		Crump et al.	6/10/1997	
	5,649,161		Andrade et al.	7/15/1997	
	5,655,113		Leung et al.	8/5/1997	
	5,663,661		Dillon et al.	9/2/1997	
	5,680,361		Ware et al.	10/21/1997	
	5,708,297		Clayton	1/13/1998	
	5,748,914		Barth et al.	5/5/1998	
	5,764,963		Ware et al.	6/9/1998	
	5,844,855		Ware et al.	12/1/1998	
	5,892,981	A	Wiggers et al.	4/6/1999	
	5,928,343		Farmwald et al.	7/27/1999	
	5,933,379		Park et al.	8/1/1999	
	5,943,573		Wen	8/24/1999	
	5,952,691		Yamaguchi	9/14/1999	
	5,987,576		Johnson et al.	11/1/1999	
	6,005,776		Holman et al.	12/21/1999	

Examiner Signature		Date Considered
---------------------------	--	------------------------

*Examiner: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw a line through citation if not in conformance and not considered. Include a copy of this form with next communication to applicant.



Substitute for Form 1449/PTO

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

Page 5 of 10

Application No.	10/053,340
Filed	10/22/2001
First Inventor	Ware, Frederick A.
Art Unit	2187
Examiner	Nguyen, Than Vinh
Atty. Docket No.	RBS2.P049

U.S. Patent Documents

Examiner Initials*	US Patent Document		Name of Patentee or Applicant of Cited Document	Date of Publication	Relevant Pages, Columns, Lines
	Number	Kind			
	6,034,878		Osaka et al.	3/7/2000	
	6,049,467		Tamarkin et al.	4/11/2000	
	6,065,092		Roy	5/16/2000	
	6,067,594		Perino et al.	5/23/2000	
	6,075,730		Barth et al.	6/13/2000	
	6,111,757		Dell et al.	8/29/2000	
	6,125,419		Umemura et al.	9/26/2000	
	6,154,417		Kim et al.	11/28/2000	
	6,154,821		Barth et al.	11/28/2000	.
	6,160,754		Suh et al.	12/12/2000	
	6,172,895	B1	Brown et al.	1/9/2001	
	6,185,644	B1	Farmwald et al.	2/6/2001	
	6,233,157	B1	Yoon et al.	5/15/2001	
	6,253,266	B1	Ohanian	6/26/2001	
	6,260,097		Farmwald et al.	7/10/2001	
	6,266,285		Farmwald et al.	7/24/2001	
	6,266,730	B1	Perino et al.	7/24/2001	
	6,266,737		Ware et al.	7/24/2001	
	6,292,877	B1	Ryan	9/18/2001	
	6,304,937		Farmwald et al.	10/16/2001	
	6,314,051		Farmwald et al.	11/6/2001	
	6,321,282	B1	Horowitz et al.	11/20/2001	
	6,343,352		Davis et al.	1/29/2002	
	6,359,815		Sato et al.	3/1/2002	

Examiner Signature		Date Considered
---------------------------	--	------------------------

*Examiner: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw a line through citation if not in conformance and not considered. Include a copy of this form with next communication to applicant.



JAN 29 2007

Substitute for Form 1449/PTO

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

Page 6 of 10

Application No.	10/053,340
Filed	10/22/2001
First Inventor	Ware, Frederick A.
Art Unit	2187
Examiner	Nguyen, Than Vinh
Atty. Docket No.	RBS2.P049

U.S. Patent Documents

Examiner Initials*	US Patent Document		Name of Patentee or Applicant of Cited Document	Date of Publication	Relevant Pages, Columns, Lines
	Number	Kind			
	6,388,886	B1	Tobita	5/14/2002	
	6,401,167		Barth et al.	6/4/2002	
	6,449,159	B1	Haba	9/10/2002	
	6,477,592	B1	Chen et al.	11/5/2002	
	6,493,789		Ware et al.	12/10/2002	
	6,496,897		Ware et al.	12/17/2002	
	6,502,161	B1	Perego et al.	12/31/2002	
	6,510,503		Gillingham et al.	1/1/2003	
	6,516,365	B2	Horowitz et al.	2/4/2003	
	6,526,469	B1	Drehmel et al.	2/25/2003	
	6,545,875	B1	Perino et al.	4/8/2003	
	6,590,781	B2	Kollipara et al.	7/8/2003	
	6,640,292		Barth et al.	10/28/2003	
	6,643,752	B1	Donnelly et al.	11/4/2003	
	6,643,787	B1	Zerbe et al.	11/4/2003	
	6,646,953		Stark	11/1/2003	
	6,657,871	B2	Perino et al.	12/2/2003	
	6,675,272		Ware, Frederick et al.	1/6/2004	
	6,680,866		Kajimoto	1/20/2004	
	6,681,288		Ware et al.	1/20/2004	
	6,684,263	B2	Horowitz et al.	1/27/2004	
	6,765,800	B2	Haba et al.	7/20/2004	
	6,833,984	B1	Belgacem	12/21/2004	
	6,839,266	B1	Garrett, Jr. et al.	1/4/2005	

Examiner Signature		Date Considered
---------------------------	--	------------------------

*Examiner: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw a line through citation if not in conformance and not considered. Include a copy of this form with next communication to applicant.



JAN 29 2007

Substitute for Form 1449/PTO

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

Page 7 of 10

Application No.	10/053,340
Filed	10/22/2001
First Inventor	Ware, Frederick A.
Art Unit	2187
Examiner	Nguyen, Than Vinh
Atty. Docket No.	RBS2.P049

U.S. Patent Documents

Examiner Initials*	US Patent Document		Name of Patentee or Applicant of Cited Document	Date of Publication	Relevant Pages, Columns, Lines
	Number	Kind			
	6,853,557	B1	Haba et al.	2/8/2005	
	6,873,939	B1	Zerbe et al.	3/29/2005	
	6,898,085	B2	Haba et al.	5/24/2005	
	6,912,680		Keeth, Brent	6/1/2005	
	6,950,956	B2	Zerbe et al.	9/27/2005	

Foreign Patent Documents

Examiner Initials*	Patent Document		Name of Patentee or Applicant of Cited Document	Date of Publication	Relevant Pages, Columns, Lines	Trans-lation
	Number	Kind				
	EP0 379 772			8/1/1990		
	EP0 709 786			5/1/1996		
	EP0735492			10/2/1996		
	WO00/54164			9/14/2000		
	WO99/41667			8/19/1999		
	WO99/50852			10/7/1999		

Non Patent Literature Documents

Examiner Initials	Name of Author, Title of Item, Date, Page(s), Volume-Issue Number(s), Publisher, City and/or Country where Published	Trans-lation
	Changsik Yoo, DRAM Design 3, Samsung Electronics, High Speed DRAM Interface, 35 pages.	
	Crisp, Richard "Direct Rambus Technology: The New Main Memory Standard," IEEE Micro, November/December 1997, 0272-1732/97.	

Examiner Signature	Date Considered

*Examiner: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw a line through citation if not in conformance and not considered. Include a copy of this form with next communication to applicant.



Substitute for Form 1449/PTO

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

Page 8 of 10

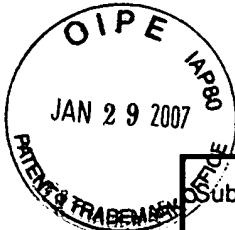
Application No.	10/053,340
Filed	10/22/2001
First Inventor	Ware, Frederick A.
Art Unit	2187
Examiner	Nguyen, Than Vinh
Atty. Docket No.	RBS2.P049

Non Patent Literature Documents

Examiner Initials	Name of Author, Title of Item, Date, Page(s), Volume-Issue Number(s), Publisher, City and/or Country where Published	Translation
	European Search Report and Written Opinion in European Patent Application 02009032.0-2212-, search completed June 27, 2005 (27.06.05), 9 pgs.	
	European Search Report and Written Opinion for EP 1 653374 A3 (Application number 05022021.9) , July 26, 2006 (26.07.06), 6 pgs.	
	IBM, 184 Pin DIMM Design Updates/Ramifications for Unbuffered and Registered DDR DIMMs, JC-42.5, Dec. 1999, pgs. 1-12.	
	IBM, Corp., Application Note, Direct Rambus Memory System Overview, March 30, 1998, pgs. 1-5.	
	IBM, Micron Technology, and Reliance Computer Corporation, DDR SDRAM Registered DIMM Design Specification, Revision 0.6, November 1999, 62 pages.	
	IEEE Draft Standard for a High-Speed Memory Interface (SyncLink), IEEE Draft 0.99 IEEE P 1596.7-199X, 1996, 66 pages.	
	IEEE Standard for Scalable Coherent Interface (SCI), IEEE Std 1596-1992, 270 pages.	
	International Search Report and Written Opinion of the International Searching Authority in International Application PCT/US2005/032346, ISA European Patent Office, April 18, 2006 (18/04/2006), 12 pgs.	
	John Poulton, Signaling in High-Performance Memory Systems, ISSCC 1999, slides 1-59 on 30 pages.	

Examiner Signature	Date Considered

*Examiner: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw a line through citation if not in conformance and not considered. Include a copy of this form with next communication to applicant.



JAN 29 2007

Substitute for Form 1449/PTO

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

Page 9 of 10

Application No.	10/053,340
Filed	10/22/2001
First Inventor	Ware, Frederick A.
Art Unit	2187
Examiner	Nguyen, Than Vinh
Atty. Docket No.	RBS2.P049

Non Patent Literature Documents

Examiner Initials	Name of Author, Title of Item, Date, Page(s), Volume-Issue Number(s), Publisher, City and/or Country where Published	Trans-lation
	Lluis Paris, et al., WP 24.3 A 800MB/s 72 Mb SDRAM with Digitally-Calibrated DLL, 1999 IEEE International Solid-State Circuits Conference, 0-7803-5129-0/99, 10 pages.	
	Mike Seibert, DRAM Memory Enabling, Micron Technology, Inc., Competitive DDR Memory Sub-systems, Platform Conference, July 18 - 19, 2000, 67 pages.	
	Peter Gillingham, MOSAID Technologies and Bill Vogley, Texas Instruments, SDRAM: High-Performance, Open-Standard Memory, IEEE Micro, November/December 1997, pgs. 29-39.	
	Peter Gillingham, MOSAID Technologies, Inc. SDRAM Architectural and Functional Overview, SDRAM Consortium, August 29, 1997, 13 pages.	
	Rambus, Inc. Data Sheet "Direct RDRAM 256/288-Mbit (1Mx16/18x16d)" Preliminary Information, Document DL00105 Version 1.1, 72 pages.	
	Rambus, Inc. Data Sheet, Preliminary Information, 8/9-Mbit (1M x 8/9) and 16/18-Mbit (2M x 8/9) RDRAM, March 1996, pgs. 1-30.	
	Rambus, Inc. Direct RAC Data Sheet, Advance Information, August 7, 1998, pgs. 1-47.	
	Rambus, Inc., Direct Rambus Short Channel Layout Guide, Version 0.8, March 2000, 33 pages.	
	Rambus, Inc., Rambus RIMM Connector, Document DL 0069 Version 1.01, July 1999, 14 pages.	

Examiner Signature	Date Considered

*Examiner: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw a line through citation if not in conformance and not considered. Include a copy of this form with next communication to applicant.



Substitute for Form 1449/PTO

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

Page 10 of 10

Application No.	10/053,340
Filed	10/22/2001
First Inventor	Ware, Frederick A.
Art Unit	2187
Examiner	Nguyen, Than Vinh
Atty. Docket No.	RBS2.P049

Non Patent Literature Documents

Examiner Initials	Name of Author, Title of Item, Date, Page(s), Volume-Issue Number(s), Publisher, City and/or Country where Published	Trans-lation
	Rambus, Inc., Rambus SO-RIMM Module (with 128/144Mb RDRAMs), Advance Information, Document DL0076 Version 0.7, February 2000, pgs. 1-12.	
	Rambus, Inc., Rambus RIMM Module (with 64/72Mb RDRAMs) Data Sheet, Preliminary Information, Document DL0078 Version 0.90, March 1999, pages 1-11.	
	Samsung Electronics, SDRAM Module, Preliminary KMM377S1620CT2, Rev. 1, Nov. 1998, 12 pages.	
	SLDRAM Inc., 4M x 18 SLDRAM, Draft/Advance, July 9, 1998, pgs. 1-69.	
	Wong, D., et al., "Inserting Active Delay Elements to Achieve Wave Pipelining," IEEE 1989, pgs. 270-273.	
	Y.R. Kim, Memory Product Planning and Application, Samsung Electronics, DDR, Today and Tomorrow, Platform Conference, July 18 - 19, 2000, 26 pages.	
	Yasunobu Nakase, et al., Source-Synchronization and Timing Vernier Techniques for 1.2-GB/s SLDRAM Interface, IEEE Journal of Solid-State Circuits, Vol. 34, No. 4, April 1999, pgs. 494-501.	

Examiner Signature	Date Considered

*Examiner: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw a line through citation if not in conformance and not considered. Include a copy of this form with next communication to applicant.